

LOADSTAR LETTER #50

Working With Words
Color Your World
With GeoPaint
By John Elliott

Mr. Mouse Into Tutorial
50 Interesting Things About Computers
By Jeff Jones

OUR FABULOUS
FIFTIETH
CONSECUTIVE ISSUE

SuperRAM Programming
By Robin Harbron

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The LOADSTAR Letter Celebrates Its 50th Issue!

By Jeff Jones. That's right! 50 consecutive months of pixel populated pages. Fifty months! Four years! That means I've typed at least 100 words by now – and counting! The entire LOADSTAR Letter staff celebrated in the hot tub.

Super Snapshot Hits the Streets Again

By Jeff Jones. J.P. Products By Mail has acquired the rights to manufacture Super Snapshot cartridges. As of now JPPBM is shipping version 5.2.2 packaged just as it was when it stopped selling. As most LOADSTAR readers know, I can't praise this cartridge enough. It comes with every utility that a Commodore user needs. If it's not in the cartridge, it's on the disk. This is the monster of all cartridges, and for my tastes is the best memory capture card ever available. SuperCPU owners will want to look into getting one even though the chip isn't compatible with the SuperCPU. This is because when you run across programs that are incompatible with the SuperCPU, you can capture the program with the Snapshot cartridge and then run the captured program in the SuperCPU. The main problem with SuperCPU incompatibility is the weird boot. Whether it's strange fastloaders or strange depack algorithms that use illegal opcodes, Snapshot allows you to capture the program *after* all that illegal stuff has happened, and run the real program as a regular file in the SuperCPU. Anyone who has games and demos that won't work with the SuperCPU should consider a Super Snapshot.

Because Super Snapshot is late shipping, everyone who ordered it before October 1, 1997 will receive a free 32K RAM chip in the cartridge. Those who paid for the expansion will have that amount refunded.

JPPBM has given CMD permission to look into altering the ROM and/or layout in order to make the product more compatible with their products. He's also looking into

other improvements over the original.

*J.P. PBM Products by Mail
Box #60515*

*N. Sheridan Mall Postal Outlet
Downsview, Ont. M3L-1B0*

Tel: 1-416-240-8993

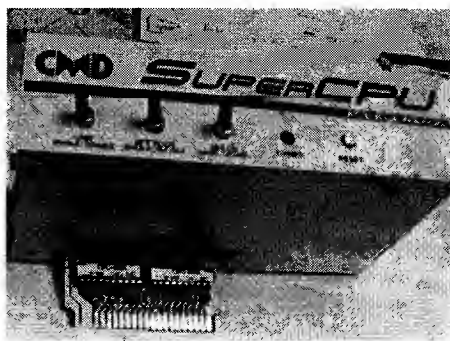
Price \$74.95 + \$7.50 Shipping Canada.

\$74.95 + \$11.25 Shipping to the US.

\$74.95 + \$18.74 Shipping overseas.

LOADSTAR Letter Super Snapshot Sweepstakes

If you return the winning entry form I will be glad to say "You have won a free Super Snapshot Cartridge!" JPPBM has agreed to give away one Super Snapshot system to the lucky winner in our drawing on December 15, 1997. Just send in the coupon on the inside back page to be entered. No purchase necessary. Wink. Wink.



Latest CMD News

On October 4, 1997 CMD announced that the much delayed SuperCPU 128 entered the board layout phase the previous week. "Unless problems are uncovered through further testing, the hardware design of the product is now complete. Production could begin as soon as 4-5 weeks from now, depending on how much time is required for board layout, board production and firmware development."

Commodore and Atari Maligned in Press

By Jeff Jones. Last week a LOADSTAR reader sent me some news clippings about steadfast 8-bit users. Naturally the articles treated C-64s and their users as little more than curiosities. One article quoted Doug Cotton as if from an interview, but quoted him out of context, in a way that would make seem as if he was confused why Commodore still had a following.

The crowning achievement in lazy journalism went to coverage of the old Atari 400 and 800 computers. The article claimed that only 5000 were ever sold, and that it took these computers (which have similar computing power to a C-64) thirty-seven minutes to sort 200 video titles. Huh? Even in BASIC, it's a stretch to put it beyond a couple of minutes. Compiled? Maybe minutes. ML? Seconds. Properly written ML? Less than a second.



Commodore 64 Audio CD In Production

By Jeff Jones. How would some of the more popular Commodore SID music sound if the music were studio-recorded through thousand-dollar keyboards and tone generators? High Technology Publishing Ltd. are creating an audio CD, "Back in Time," which anyone with a CD player can listen to. Each track is included with the permission of the original composer or software house.

Some of the artists and titles include:

Rob Hubbard/Gremlin Interactive

- Thing on a Spring
- Monty on the Run
- Auf Wiedersehn Monty

Rob Hubbard

- Crazy Comets
- Delta Title Tune
- Delta End Game Tune

- Sanxion
- Lightforce

Jeroen Tel

- Cybernoid 2
- Stormlord (St-St-Stormlord)
- Turbo Outrun (H-h-h-h-h-h-hit the gas!)

Benn Daglish

- Last Ninja Level 1 Tune

Martin Galway/Ocean

- Rambo (tune that starts with Morse Code)
- Wizball Title Theme
- Parallax
- Ocean Loading Theme v3.0
- Mutants
- Arkonoid

Their website is not for C-64 users except for the information available. All downloads are playable only as MPEGs, WAVs mostly MIDI files. The individual sample songs are in ZIP format. The collections are doubly Zipped (ouch). I've listened to some of the MIDI files online at their website and even on my PC the style screams C-64. I'd like to hear the professionally mixed CD when it's released.

Release Date depends upon sorting out the last remaining legal permissions. The price will be announced. Email for inclusion in the notification mailing list for CD availability:

*Chris Abbott, High Technology Publishing Ltd.
Digital Studio Reproductions of Commodore 64 Themes
Email: html@di.al.pipex.com
<http://terabyte.virtual-pc.com/html>*

The Internet for Commodore C64/128 Users

2nd Edition

by Gaele R. Gasson

ISBN: 06-646-32207-9

The only Commodore C64/128 Internet reference guide, this 296 page manual takes you through hardware and software needed, how to get online and what you can do once you're there. It covers Email, World Wide Web, FTP, IRC, Telnet, Newsgroups, Commodore files, archives and much more.

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Also available from Loadstar. Item #900920

LOADSTAR Releases Mr. Mouse As Free-ware

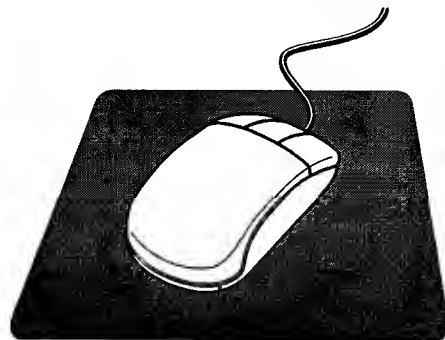
By Jeff Jones. Mr. Mouse is an important piece of software for the C-64. We talked it over at the tower and decided that more programmers need to be exposed to Mr. Mouse. It can be found at <http://www.loadstar.com/mouse/> or you can download the files directly:

<http://www.loadstar.com/mouse/docs.txt>

<http://www.loadstar.com/downloads/mousec000>

<http://www.loadstar.com/downloads/mouse9000>

At its core, MR. MOUSE is just a souped-up mouse driver. Packed in with it are many useful tools that will make creating a mouse-supporting program quite simple. Programs written with MR. MOUSE automatically support both a mouse in Port 1 and a joystick in Port 2. For the programmers out there, a mouse-driven program is more likely to be



Top Ten Stupid Ways Computers Messed Us Over In The 90s

1. The billing error no one believes. You pay too much because someone made a typo, but since the computer is considered infallible, human error isn't considered. So it takes you three months to get your money back.
2. The flip side of the billing error: Computers find out quickly if they under-bill you and fix the error!
3. Telemarketers: Computers dial all possible numbers, including all of yours. Your phone will ring from a telemarketer whether listed or unlisted.
4. Hang-up calls from telemarketers: Computers dial a bunch of numbers at once. If you pick up and say "Hello," while no telemarketer is ready to get to you, the computer simply hangs up on you and re-queues your number.
5. Databases: You order one naughty thing and naughty mail follows you the rest of your life.
6. Databases: You order anything to do with weight loss or exercise and suddenly your mailbox bulges with snake oil.
7. ATM cards. You finally get used to leaving the house without the checkbook and satellite problems make every ATM in WAL-MART and the supermarket unavailable for a week.
8. The fee, also called "Just bill the sucker for the heck of it and give it a fancy name" by accountants. You have already paid for a service which took a computer a micro-second to accomplish.
9. Databases again: How many times can you get a "Last Chance" catalog? You almost want to order something to shut them up!
10. Efficiency experts with spreadsheets: These are the guys who came to the decision that the company could live without bonuses for the past four years, and without you - right after Christmas.

accepted by LOADSTAR. Don't get caught in a mouse trap with your programs. There are a few programming pitfalls inherent to Commodore mouse programming. See my mouse tutorial on page 11 of this newsletter.

Commodore System Sighting On TLC

By Jeff Jones. I nearly coughed up my Froot Loops as I watched a UFO special on The Learning Channel and a crop circle researcher sat in front of his Commodore 1702 monitor, black 1541, and typed in data gathered from the field on what looked like a Commodore Plus 4. They didn't show the researcher long. In fact they showed more of him typing into his Commodore than they showed him talking. Nevertheless, chalk it up to one more Commodore sighting on television. Frankly there was no need to show the man typing into the Commodore station. I think the camera man had to be a Commodore enthusiast - or maybe if he thought the researcher was a loony for devoting his life to crop circles, he wanted to set the scene up to show that he was also cultic in his computer use. Okay, Jeff! Enough with the cynicism!

SuperRAM Arrives!

By Robin Harbron. I received a much-awaited package a few days ago in the mail. It contained a Turbo232 cartridge, which I'm sure will lead to another article soon. Most importantly, the package contained a SuperRAM card - something eagerly awaited by myself and others for more than a year. I managed to acquire an 8 megabyte SIMM within a few hours, and in another 15 minutes had my C-64 displaying the message:

```
SuperCPU DOS 1.40 (C)1996 CMD
8MB CPU RAM 38911 BASIC BYTES
FREE
```

Amazing! This is 128 times as much memory as the C-64 originally came with - and the card can actually handle a SIMM twice as big as what I currently have in there.

NUMBER	1048576s place	65536s place	4096s place	256s place	16s place	1s place	TOTAL
SA23456	\$A	\$2	\$3	\$4	\$5	\$6	
	A* 1048576 =10485760	2*65536 =131072	3*4096 =12288	4*256 =1024	5*16 = 80	6*1 =6	10630230

Dealing With Six-Digit Hex

In fact, I encourage everyone to get 16 megabytes - these SIMMs are really inexpensive now.

There are a few things to note about the new startup message:

First, the new DOS version is 1.40. I used to have version 1.26 in my machine. It was a simple matter of removing the old DOS ROM and replacing it with the new one. The SuperRAM manual states that v1.40 is the first to support the SuperRAM card. So the first step in detecting extra memory is to check the version number. It is stored in PetASCII in the four bytes starting at \$00E487 (decimal 58503). Your program should check that the text there is equal to or greater than 1.40.

Secondly, while the second line states that there is "8MB CPU RAM", you'll notice there is still just "38911 BASIC BYTES FREE". The extra RAM is not accessible directly from BASIC without a BASIC extension or ML package. I've written two short routines that allow you to do the equivalent of a PEEK and POKE to any memory location in the SuperCPU.

Before we get into those routines, there's one more thing to examine: locations \$00D27C through \$00D27F hold information on what area of SuperRAM is available. \$00D27D holds the number of the first available bank. When started up, my machine reports a value of 2 in this location. This is because the first 2 banks of RAM (the first 128K) are actually fast (and expensive) SRAM, which came with your SuperCPU. The expansion begins immediately after this. \$00D27C holds the first page available within that bank - on my SuperCPU this location holds a 0. The starting address of SuperRAM is \$020000. \$00D27F holds the number of the last available bank plus 1, while \$00D27E holds the last available page plus 1. This value is \$800000 on my machine so \$7FFFFFFF is really the last available byte.

These 4 locations should be updated by any program that uses SuperRAM. If your program is going to use the first 4 available banks (256K) of RAM, for example, it should execute the following command:

POKE53374,0:POKE53885,PEEK(53885)+4:POKE53375,0. Note that the SuperCPU registers have to be switched in first, as is explained in the SuperCPU manual.

It's quite likely that future SuperRAM programs will be expected to co-exist with other programs on your machine. Each program that will use SuperRAM memory should do its proper housework, so that other programs will be aware of each other's existence.

My little program allows you to peek or poke a value anywhere in the SuperCPU's 24 bit addressing space. You may have noticed that the hexadecimal addresses mentioned so far in this article have had 6 digits, instead of the usual 4. This is because the SUPERCPU can access this much memory directly now.

The routines are simple and easy to use:

To do a POKE just:

SYS49152,bank,address,value

To do a PEEK just:

SYS49155,bank,address,var%

where bank is from 0 to 255 (memory permitting), address is from 0 to 65535, value is what you'd like to POKE to the location (value between 0 and 255) and var% is an integer variable such as A% or Z2%. After the SYS 49155 command, var% will contain the value of location bank, address. Note that the integer variable must already be defined before executing the SYS, with a line such as A%=0, or the value will not be stored. Here's the listing:

*=\$c000

jmp pokelong

jmp peeklong

```
pokelong jsr getnum
        sty pokeaddy+2
        jsr getnum
        sta pokeaddy+1
        sty pokeaddy
        jsr getnum
        tya
        .byte $8f ;STA longaddr
pokeaddy .byte 0,0,0
        rts
```

```
peeklong jsr getnum
        sty peekaddy+2
        jsr getnum
        sta peekaddy+1
        sty peekaddy
        .byte $af ;LDA longaddr
peekaddy .byte 0,0,0
        pha
```

```
jsr getnum
pla
ldy #1
sta ($47),y
dey
lda #0
sta ($47),y
rts
```

```
getnum jsr $ae fd
        jsr $ad8a
        jmp $b7f7
```

Most of the program is simply a matter of reading the parameters from the SYS commands - this is covered well in Jeff's article on page 11 of LOADSTAR Letter #38. Each of the parameters are read in, and then stored directly into the program, behind the corresponding long STA or LDA. This is called self-modifying code, and is often frowned upon by my fellow Computer Science types, because it's difficult to read and debug. I admit I am not very familiar with 65816 code yet, and this was the most obvious way to me to implement this. Again, I recommend Commodore World #16 for its excellent chart, showing every opcode the 65816 understands.

The long STA (opcode \$8f) and LDA (opcode \$af) take 3 bytes as their parameter, which is a 24 bit address, able to access every single byte in the SuperCPU's 16MB addressing space. The bytes are stored in low/hi/bank format. The word bank can be a little misleading - I often think of it as the "even higher" byte.

There are a number of changes I would have made to this program had I a '816

assembler - I just find all those .byte commands containing opcodes very unreadable, so I stuck with standard 65XX opcodes which my assembler understands, where possible, choosing program clarity over efficiency. The most obvious change would be to use STA (\$47) (.byte \$92, \$47) instead of STA (\$47),y, saving a cycle in execution time, and freeing the Y register. It's wonderful to finally have this opcode at my disposal, after all those years of dreaming of being able to do that.

I've also written a short program in BASIC to illustrate the use of these routines. This simply stashes the screen in memory with a RUN command, and restores the stashed screen with a RUN200.

```
100 a%=0
110 for x = 1024 to 2023
120 sys49155,0,x,a%
130 sys49152,2,x,a%
140 next x
150 end
200 a%=0
210 for x = 1024 to 2023
220 sys49155,2,x,a%
230 sys49152,0,x,a%
240 next x
```

I've arbitrarily copied the screen (in bank 0 - the main 64K of the C-64) to the same location in bank 2. These routines don't work nearly as fast as an REU, since they are written in BASIC, but an equivalent program in pure assembly would be able to run nearly as fast as an REU.

These two little routines should open up your SuperRAM to any BASIC programs you may write, and the source code should give enough of an example to access all this extra RAM.

```
10 x=49152
20 read a : if a<0 then 50
30 poke x,a : b=b+a : x=x+1
40 goto 20
50 if b<>8038 then print "data error" : end
100 data 76, 6,192, 76, 30,192, 32
110 data 64,192,140, 28,192, 32, 64
120 data 192,141, 27,192,140, 26,192
130 data 32, 64,192,152,143, 0, 0
140 data 0, 96, 32, 64,192,140, 48
150 data 192, 32, 64,192,141, 47,192
160 data 140, 46,192,175, 0, 0, 0
170 data 72, 32, 64,192,104,160, 1
180 data 145, 71,136,169, 0,145, 71
190 data 96, 32,253,174, 32,138,173
200 data 76,247,183,238, 32,208, -1
```

WEB WATCH!

<http://huizen.dds.nl/~skynetw/final.htm>
<http://www.dreambook.com/pcgeek/proj64.html>

The Final Cartridge III Site

By John Elliot

The Internet contains pages dedicated to many good but underused aspects of 8 bit Commodores. There is a VIC 20 page, which I frequently checked until my VIC died. There is also a page dedicated to my 1520 plotter. What is new and constantly being updated though, is the site dedicated to the Final Cartridge III by Sky Networks.

To date the site describes and gives the history of Final Cartridge III. Two programs are available for downloading. One provides an autoboot of any program that was backed up by Final Cartridge III. The other makes up for Final Cartridge III's one glaring deficiency.

I can do color screen dumps with my cartridge to either my Rainbow impact or Epson Stylus II ink jet printer. The colors of the hard copy reflect those on my video monitor. I can vary image size, orientation and intensity. But I cannot save these captures to disk. I would like to incorporate these screen captures as Koalas in my The Write Stuff Illustrator created documents. Other capture cartridges, such as Super Snapshot, can do this.

This Final Cartridge III site has a downloadable Final Cartridge Capture program that will save the screen captures as Koala files. It will work with standard Commodore color formats, so long as they are not raster created. A Lynx depacker will be necessary in order to make the program available on a Commodore disk.

A Commodore 64/128 that uses a "shell account" to access the Net will be able to download either program. I wish Sky Networks had placed an unpacked version of the Lynx depacker also at their site. This program has nothing to do with the Lynx browser. I imagine it is available at the University of Waterloo Commodore site.

The creators of these pages have appealed for the Final Cartridge III source code so that they can commission additional Final Cartridge III programs. It is nice to know that "Ten Years After" our product support has been resurrected.

This site can be reached at:

<http://huizen.dds.nl/~skynetw/final.htm>

Or

Enter "final cartridge III" into most search engines.

Project 64

By John Elliot

Last year the Commodore newsgroup on the Internet carried a request for the loan of a Final Cartridge III manual. Since I have two copies of the manual, I contacted the poster by e-mail. He told me that he was a member of Project 64.

He wanted to scan the text of my manual, zip it, and place the resulting file at a web site for downloading. The process after I sent him my hard copy, took about two months. Every few weeks he e-mailed me his progress to date.

He returned my manual and mailing costs. As additional payment, he sent me on two high density 3 1/2" ms DOS disks all the files of Commodore manuals that had been created to date. Since there were over one hundred files, some containing one hundred plus pages, they were all zipped.

The zip method was not compatible with my Commodore unzip programs. I did use Winzip on an IBM clone to unzip the Final Cartridge III manual and the Chip set version of the I750 REU manual. I saved each to a double density MS-DOS 3 1/2" disk and read the files at home with my Big Blue Reader.

The plain ASCII text was readable in 80-column format. Tables were laid out as they were in my hardcopy, with cell divisions created using (---|) types of dividers. Page and chapter references were changed to section listings. My user's comments and the scanner's comments were included.

I could copy the Final Cartridge III manual to a Commodore disk, and load it into a word processor. It would fit on my 128, I think. I would need to load it in sections on my c64. I could then use the hunt function to find all references of a particular feature. I could also print out the sections that I most frequently refer to. In writing about the Final Cartridge III, I could easily insert the relevant manual text sections without retyping.

I own a number of programs that have no manuals. Some I inherited when I bought second hand hardware. In other cases someone has copied the program created by a long dead company, that can no longer service its product. Occasionally I simply lose my manual. As I have suggested above though, "electronic text" has some advantages over hard copies.

The list of completed projects contains more games than any other category. Also included though, are manuals for topics as varied as the Commodore tape drive, e-text versions of books about the c64, and Commodore video monitors.

The linked web pages have sections describing the project, listing the completed files, manuals that have been scanned but not edited, manuals where they hold unscanned hard copies, and a want list of manuals not yet obtained.

Only the head of the project, Cris Berneburg, uses a real name. Most other scanner/editors either call themselves anonymous or use a fantasy name (Bilbo?). I suspect this may be because of the legal ambiguity of the task. These are texts that cannot be purchased for retail. There probably is though, a copyright holder somewhere for all these materials. There is no charge though for downloading these files. Did Mr. Pickwick say "The law is an ass"?

The person who scanned my Final Cartridge III manual was selfless. He did not own, and had never seen a Final Cartridge III, and yet he thought it important that an e-text version be created and made available.

Contact the Project director, Cris Berneburg, at pcgeek@CompuServe.com, or 74171.2136@CompuServe.com.

The web pages are found at:

<http://www.dreambook.com/pcgeek/proj64.html>

50 Interesting Things That You Learn About Computers In The Movies

By Jeff Jones. Half of this was taken from The Infinite Loop (Western Colorado Commodore User's Group Newsletter) August 1997. Twenty-five of the "interesting things" appeared in the aforementioned newsletter as 25 *Interesting Things That You Learn About Computers In The Movies*. I mixed in 25 more. Number 31, which I didn't write, I found particularly interesting because I own an array of image enhancing software, including *IntelliHance*. I've found that no matter what you throw at some images, you get back garbage. Any image half the size of a dime in a photograph has little detail in it, and blowing it up only shows clearly the lack of detail, not *more* detail. If any of the fifty aren't funny, blame those on Jeff Jones. Please mutate this article further.

1. Word processors never display a cursor.
2. You never have to use the spacebar when typing long sentences.
3. Hackers can talk and type incredibly fast without making mistakes. They also never touch their mouse.
4. All monitors display 2-inch high letters.
5. High-tech computers, such as those used by NASA, the CIA, or some such governmental institution, have easy-to-understand graphical interfaces.
6. Those that don't will have incredibly powerful text-based command shells that can correctly understand and execute commands typed in plain English.
7. Corollary: You can gain access to any information you want by simply typing "ACCESS ALL OF THE SECRET FILES" on any keyboard.
8. Likewise, you can infect a computer with a destructive virus by simply typing "UPLOAD VIRUS." Viruses cause temperatures in computers, just like they do in humans. After a while, smoke billows out of disk drives and monitors.
9. Any real computer expert can just look at the computer's burned out guts and see a virus.
10. Any real expert can spend a day or two researching an alien's technology and find a way to not only interface with their computer, but also throw in professional extras to any virus they write for the good guys. Let the aliens know they are about to die with a cute animation of a skull and crossbones. The format of the wave file for the evil laugh from the skull and crossbones will be heard because all computers have compatible sound systems, and no alien ever has the volume turned down.
11. All computers are connected. You can access the information on the villain's desktop computer, even if it's turned off.
12. Powerful computers beep whenever you press a key or whenever the screen changes. Some computers also slow down the output on the screen so that it doesn't go faster than you can read. The *really* advanced ones also emulate the sound of a dot-matrix printer as the characters come across the screen.
13. All computer panels have thousands of volts and flash pots just underneath the surface. Malfunctions are indicated by a bright flash, a puff of smoke, a shower of sparks, and an explosion that forces you backward. See #8, above)
14. People typing away on a computer will turn it off without saving the data.
15. A hacker can get into the most sensitive computer in the world before intermission and guess the secret password in two tries.
16. Any PERMISSION DENIED has an OVERRIDE function.
17. If OVERRIDE fails, the computer will get the message if you try twice more.
18. Complex calculations and loading of huge amounts of data will be accomplished in less than three seconds. In the movies, modems transmit data at two gigabytes per second.
19. The more power you supply a computer, the more powerful it is.
20. The government's computer rooms all have a strange humming sound.
21. When the power plant/missile site/whatever overheats, all the control panels will explode, as will the entire building.
22. If you display a file on the screen and someone deletes the file, it also disappears from the screen. There are no ways to copy a backup file-and there are no un-delete utilities.
23. If a disk has got encrypted files, you are automatically asked for a password when you try to access it.
24. No matter what kind of computer disk it is, it'll be readable by any system you put it into. All application software is usable by all computer platforms.
25. The more high-tech the equipment, the more buttons it has. However, everyone must have been highly trained, because the buttons aren't labeled.
26. Most computers, no matter how small, have reality-defying three-dimensional, real-time, photo-realistic animated graphics capability.
27. Laptops, for some strange reason, always seem to have amazing real-time videophone capabilities and the performance of a CRAY-MP.
28. Whenever a character looks at a VDU, the image is so bright that it projects itself onto his/her face.
29. Computers never crash during key, high-intensity activities. Humans operating computers never make mistakes under stress.
30. Programs are fiendishly perfect and never have bugs that slow down users.
31. Any photograph can have minute details pulled out of it. You can zoom into any picture as far as you want to. For example: "What's that fuzzy thing in the corner? I don't know, let's check. It's the murder weapon!" "Let's look under the bed for the killer's shoes. No, just some comics hooks (Marvel 1954, very rare). Let's check the closet shelves..."
32. All enhancements made to the image on-screen are done with keyboard commands, typed blind, and at incredible speed with no typos. The computer operator can highlight sections of the image without a mouse, joystick or any pointer.
33. Contrary to popular belief, lightning and/or spilled soda can bring a computer to life instead of destroying it.
34. Any high-tech company is a slave to its computers and can't begin to

- believe that its computer could have made a mistake.
35. Computers are inherently good or evil, never in between. If a computer comes to life and doesn't try to make friends, it will eventually try to kill you.
 36. In trying to figure out what's wrong with the computer, our hero can easily spot the lines of code that make the computer into a psychopath, but never suggests deleting them. The only way out is usually the destruction of the multimillion-dollar computer.
 37. No evil computer can simply be turned off or on. They always get their power from some independent power source. Cutting the power always involves a complicated trek deep into the sub-levels or out past velociraptors or both. At the power source, you can't just pull the plug or take an ax to the conduit. You *must* push many buttons – and the computer will *allow* you!
 38. Anything controlled by a computer can't be stopped – even by cutting electricity. For instance the deadly fan blades in Stallone's Daylight.
 39. Hackers can use VR goggles without hooking them up to a PC.
 40. If a computer comes to life, it's astounding, but if it makes a mistake after that, the punishment is death.
 41. Everyone uses a PC but no one uses Windows on their PC.
 42. Truancy, criminal hacking and video game prowess is a good indicator of intelligence and heroism. By the way your current grades are accessible on a computer – even though the teacher uses a grade book. The teacher won't notice any changes you make.
 43. Upon power-up, no computer identifies its manufacturer, station or configuration.
 44. Every hero has configured his or her computer to be cute and graphically unique, and even has the time, creativity, and resources to integrate animated video into system messages with the hero's face and voice.
 45. Any device that connects to a computer can be taken over by an evil computer and even transmit video data with no camera and digitizer.
 46. People who don't own computers hate them and don't want one. They

announce proudly over and over that they don't know a thing about computers or "computers just hate me."

47. People who use computers are completely absorbed by them and want to use them for everything. A silly line like, "Overload! Overload! I'd like to interface with *her*!" usually signifies this fact. If the user is an adult, they have wired their home to a fault, and have complex contraptions doing simple jobs like flipping pancakes.
48. People who work with computers hate them because "everything was fine before they changed the system."
49. People possessed by evil computers tend to generate sparks when injured. The computer controlling them seems unaware that the human vessel is capable of fluid motion or the occasional sprint when chasing their victims.
50. The elderly hate computers and to date none have ever saved the world from invaders using one. They have been known to escape the far-reaching grasp of evil living computers by being outside of the net.

Working With Words

By John Elliot

It may be that the most common use of computers at home and school is word processing. This application has shown the least evolution on any platform over the past several years. When Microsoft Word or WordPerfect bring out a new incarnation, the innovations are that spreadsheets, databases and paint programs are contained within the word processor. Sometimes, features that were always available, such as drop capitals, become more automated. The more recent word processors automate web page creation for the Internet, and contain a browser.

When a C-64/128 word processor is compared with the newest Mac or IBM suite of programs, it may seem to be quite basic. This can be an advantage. Commodore word processors load quickly, especially if the computer has a quick load cartridge, or stores the program in a non-volatile ram device,

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such as a Quick Brown Box or RAMLink. Although most C-64 word processors have only a 40-column screen for editing, they do allow 80-column previewing. The 128 programs have 80 columns for both editing and previewing.

Output

Many people create their text with a standard text based word processor, such as Speedscript, and then load it into geoWrite in order to mix fonts and insert images. Fontmaster also allows the use of a range of fonts. The Illustrator version of The Write Stuff makes it possible to mix text with high-resolution color and Print Shop images. Embedded codes in any word processor allow font and image manipulation on most impact and ink jet printers. With The Big Blue Reader it is possible to type text with a Commodore, and load it into an IBM clone for output on a laser with all attendant features.

While these features are important, they have little to do with the creation of content. Most of us own several Commodore word processors. They are not that expensive. With the range of Commodore word processors I own, I perform more sophisticated editing than most Word/WordPerfect owners bother to attempt.

The Range

I have access to The Write Stuff 64/128 and Illustrator versions, Paper Clip III 64/128, and Fleet System 2+ for the C-64. I have just the manual for Word Writer 128. Whatever word processors you own, among them you likely have most of the features I will describe.

File Linking

This feature is really connected with spell checking and search and replace. Most word processors have a file linking command which permits chaining for printing several text files. Paper Clip III also chains for spell checking and search and replace. For each application, Paper Clip III will make the necessary changes to the text and automatically save the changes to disk. I know of no other word processor that will do this.

The first file of the chain must be named and loaded from disk, rather than from memory. There are three kinds of

link. A global link will automatically load the next file in the chain when the current one is completed. A non-specific link prompts for a file name before each new file load. The external file link uses a control file that intersperses standard text with load commands for other files.

Spell Checking

Most Commodore word processors provide for a regular list of words to which the text you are typing is compared. If there is not a match, the word you have typed that is not in the "dictionary" regular list is highlighted. If you choose, suggested similarly spelled words from the dictionary are shown. Word Writer 128, The Write Stuff, and Paper Clip III allow the addition of frequently used words to that dictionary. The Write Stuff has a small dictionary that can be used more quickly than the large one. Although more "errors" will be shown, they can easily be skipped. I can access this small dictionary instantly from my 128K Quick Brown Box, while I must run the large one from my disk drive. Note from Jeff: You haven't seen instant until you've tried it with the SuperCPU and RAMLink.

Paper Clip III with its file link feature can spell check a document constructed of files that fill a disk and automatically save the corrections to disk. With the Paper Clip III 128 version, if a 1750 REU is present, the dictionary is loaded to the REU during the first document spell check. Subsequent spell checks are instantaneous. This version of the Paper Clip III also allows spell checking with or without a bell prompt, while typing.

My The Write Stuff spell checker can autoloading on start up to my REU. It is the only one I have that won't revisit misspelled words after correction, which can be time consuming if you've misspelled deoxyribonucleic thirty-one times. Fix it once and it's fixed throughout.

Thesaurus

Word Writer 128 and Fleet System 2+ have thesauruses. The 80-column version of Word Writer 128 provides clusters of synonyms in decreasing order of similarity to the word under the cursor. Fleet System 2+ also uses a cluster approach. Fleet System 2+ also has an

antonym section which gives clusters of words that are opposite in meaning. I found that Fleet System 2+ gave me more misses than hits for both synonyms and antonyms, probably because of a small thesaurus file.

Typing Macros

Both The Write Stuff 64/128 and Paper Clip III offer typing macros. Paper Clip III requires that two letters be typed followed by a space. The resulting "expansion" could range from one letter to several lines of text including format commands. The Write Stuff needs at least one letter to be typed, followed by a space. The word macro file contains the Dolche list of most frequently used words. The file can be edited. A separate print macro file permits the creation of templates such as the writer's address heading, or a typical opening to a business letter. Typing macros allow me to at least double my typing speed.

Automatic Table of Contents

Until recently I have qualified my praise of Commodore word processors by saying that the only feature of importance to me that is missing from them is the ability to generate an index. Text book writers until recently hired students to manually construct indexes based on a list of key words provided by the author. The newer versions of Mac and IBM clone word processors automate this feature.

Paper Clip III can create a separate table of contents file. With modifications, it could also create an index. A "":tf:0:contents" (or any other text after the second colon), command at the start of text turns on this feature. A "":tb:"" command before each word or line that is to be in the table will guarantee that when a print to screen or printer command is used, all text appropriately marked will be saved to the contents file. This file can then be loaded and edited.

I was able to use this technique only if the text started at the left margin and if I used a return marker after the desired text. If article headings became table of content entries, this approach worked fine. My contents file listed sequentially each heading with its appropriate page.

The approach to creating an index requires using the return key to move the

desired word to the left margin before following the above steps. This might mean that text near the end of some pages would be listed incorrectly. A visual check is needed. The index would not be alphabetical. If the "sort on a column" or "sort on a field" command were used, the list could be alphabetical or sequential by page.

Frequency and Statistics Reports

I bought Fleet System 2+ for my C-64 so that I could use the "Frequency and Statistics" feature. I assume that Fleet System 4 for the 128 has an expanded version of the program. It loads separately from the word processor. This is fortunate, since my C-64 version of Fleet System 2+ only holds 750 words. I used its special options program yesterday though to examine a 2000 word file.

Most options selections allow modifications to the spell checker. The last selection, however, will provide customizable lists of word use frequencies from the document on disk.

With the 2000-word file I decided to look only at words 5 letters in length or longer. This list of words could be shown to me in order of frequency in ascending or descending order, or alphabetically. Most word processors will tell the number of words typed. This Options program will also tell the number of unique words. My 2000 word document used 671 unique words. I also was told the number of words by length, number of different words, of unique words, of sentences, and of paragraphs. This information is useful in determining the reading difficulty level of a selection. While some readability charts and formulae, such as Frye's, also ask for the number of syllables, in general, simplicity of content is linked to shortness of words, sentences, and paragraphs. It is also useful to know whether particular words have been overused. If they have, the Fleet System 2+ thesaurus might help find some alternatives.

Text Conversion:

Fleet System 2+ uses user files, Paper

Clip III sequential and program files, Word Writer 128 sequential files, and The Write Stuff program files although it can load and save in any of the three formats. I normally begin my typing in The Write Stuff and save the document as a program file. I can load it and re-save it as a sequential or user file, depending on which other word processor I intend to do further editing in. I find that Paper Clip III reads The Write Stuff files best if I print to disk, leaving PetASCII on, creating a sequential file with Commodore formatting.

Other Editing and Writing Features

Most writing assignments dictate a minimum/maximum number of words. I cannot find this option for Paper Clip III. Word Writer 128 tells how much memory has been used and is left, but does not count words. The Write Stuff and Fleet System do tell the number of words used.

The Write Stuff and Paper Clip III use outliners that can be turned on and off while composing the main document. This is especially useful if the word processor permits two or more documents to be in alternate text areas simultaneously. Selected outline contents can be copied from an alternate text area to the area containing the main document. Fleet System uses an alternate text area. The Write Stuff 64 has one alternate area. The 128 version provides several alternate text areas and a split screen feature, so that two documents can be viewed at once.

Paper Clip III has a bookmark feature which would be useful for the on screen reader. The writer might wish to frequently revisit and comment on one passage. This would be faster than constant use of the hunt command. The Write Stuff 128 allows two bookmarks to be set up for these uses.

A calculator is not strictly speaking a writing or editing feature. I did find though, until I discovered the Calc spreadsheet program, that I could more easily do my income tax if I typed my line names with The Write Stuff, and did my calculations with its calculator feature, which places the numerical results wherever the cursor is located. Paper Clip III does not have a calculator, but will add and subtract columns and horizontal rows. Word Writer comes closest to a hand held calculator in that it will perform second

level operations on results held in memory. If you add a group of numbers, you can then perform an operation on that sum.

If I were visually impaired, the ability of The Write Stuff to speak the words or letters that are being typed would be an important text entry feature. Properly used, it also might make me a better touch typist.

GEOS

GeoWrite for many of us is a text output program, rather than a useful writing and editing environment. The standard GEOS 2.0 comes with a spell check dictionary. The GEOS system allows integration of the calculator application with the word processor. The Clipboard can be used to place the calculations and/or results in the text document. I do not think the other features I have discussed are available with the Berkley Softworks version of GEOS. There is a third party patch that will do word counts. Another patch will perform word analyses similar to those of Fleet System.

My BBG RAM cartridge allows me to do all my GEOS work in ram. This speeds up any disk intensive writing operation. If I had the CMD speed up board, I would be tempted to move to geoWrite for text creation as well as embellishment and output.

The Commodore Suite

Commodore users have a suite of programs that contain nearly all the features available in the Mac/IBM clone world. Few WordPerfect users take advantage of these sometimes quite useful features. Perhaps most Commodore users are equally unaware of these special writing aids.

Whatever word processors the Commodore user owns, they will contain at least some of these writing aids.

Before we "upgrade" we should fully use what we already have.

If you only have one word processor, and do not have access to the Internet based Commodore newsgroup, flea markets and newspaper ads still contain a wide range of "pre-owned" Commodore software.

Color Your World With geoPaint

By John Elliot

A GEOS columnist a few years ago noted that the lack of color in GEOS 128 was not a defect. "Most GEOS users do not have a color printer." For the same reason he recommended that the "color off" command be used with the C-64 version.

Color Image Sources

I have two color printers: a Star NX-1000 Rainbow impact and an Epson Stylus Color IIs ink jet. I only have three GEOS images in color, hand drawn by a well-known Commodore graphics guru. All of the clip art images that I can find are monochrome. I have some programs that convert other Commodore graphics images to geoPaint. Unfortunately they strip out the color. The geoGIF program that converts GIFs to geoPaint also removes color.

My drafting technique with a paint program extends to being able to use the rectangle and circle, empty and filled tools to create shapes with different colored boundaries. The faucet tool allows me to fill a shape with a designated color. Interesting abstract shapes of many colors can be created with a paintbrush that uses a variety of patterns.

The Eight Pixel Problem

In normal high-resolution mode, the Commodore 64/128 can accept only one of sixteen foreground colors and one of sixteen background colors for every 8 pixel by 8-pixel cell. Changing the foreground color for one pixel changes the color of all foreground pixels in that cell. Changing the background changes the color of all "off" cells. One additional color can, however, be placed in these 8X8 squares by using the canvas mode.

The Two geoPaint Layers

Most paint programs provide a foreground and background layer for illustrations. If color on is clicked from the options menu, and then the faucet, pencil or eraser tool is turned on, a single row of color blocks appears across the

bottom of the screen. Whichever color is selected will become the color of the faucet, pencil or paintbrush tool that is used in the foreground. If the word "color" is clicked in the tool menu, an additional set of color blocks appear. This is the background or canvas color selector. The foreground is colored with a pencil, brush or faucet. The canvas is colored by clicking on a canvas color, dragging it to the area of the draw window you wish to color, and painting with the rectangle that has replaced your cursor.

It is possible to convert clip art to multicolored hi-resolution images using the information provided above. Whether the paper copy reflects the monitor image will be influenced by whether the printer is impact or ink jet, and whether the red has been heavily used in the color ribbon or cartridge.

Painting By Numbers

If I wish to color a clip art image, I will place it on my disk as a paint scrap. I outline the area of my draw screen where I wish to paste it. Before I paste, I will select as the foreground color the color that I wish most of my image to be, or the color of its outline. For example, when a horse is pasted to my window, it will be a solid brown if that is what I selected as my foreground color.

For spot color, double click on the brush tool and select the smallest round brush image. If I select black as the new background color, I can usually outline hips and hair and add eyes without worrying about rectangular overflow into adjacent areas. When I select a light background color such as yellow, I can color the background with a large square cursor. If I overlap on a dark foreground color such as brown with my light background, that portion should be invisible. If there are empty spaces in my figure, such as windows in a house, then painting with a different background color should provide a second color without disturbing the foreground details. Some foreground/background overlaps will provide a third color, which will add to the color variety without disturbing the original image.

These color-layered techniques create bright multicolored displays on the monitor, and with a color impact or ink jet printer add information and enjoyment to

our hard copies.

Black & White in Color

The owner of a monochrome printer who has several different single color ribbons should be able to print color pictures with geoPaint, although the finished color combination will not show on the monitor. If the foreground color of an object is to be dark blue, then the clip art should be pasted into the drawing window without concern for its actual color. A dark blue ribbon is placed in the printer, and the picture is printed. The printer should then be rewound back to where it was before the previous printing. I use the perforation between pages as my starting line. If I re-paste my clip art into the same location and size on my drawing window, I now use the reverse option. What was previously empty space, such as the windows and doors of a house, is now solid color. What was dark, is now empty, and will not print a second time. If I change my color ribbon to black and print, I would have a hard copy of a blue house, with black windows and doors. If I had previously filled the drawing window with a light color such as yellow, and printed that, then I would have a blue house with black doors on a yellow background. Great care is necessary so that the object lines overlap each time a new printing is made. For this reason, it may be better to make the object (using stretch and fit in the paste options menu), large, so those slight misses during repeated printing will not be as obvious.

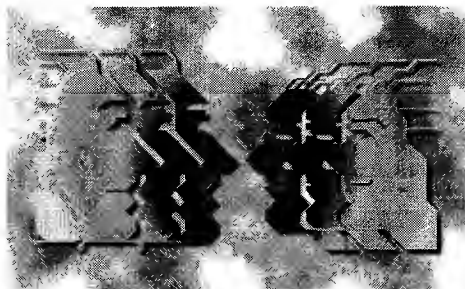
The geoPaint Advantage

I can do color screen dumps with my Final Cartridge III, although these images cannot be merged with words in a document. I can print color images with words using the Illustrator version of The Write Stuff word processor. I cannot see however, what the images will look like until they are printed out. GeoPaint is the only Commodore program that I know of that allows display of words and colored pictures on my monitor. I do not have to guess at my hard copy results.

I do not know of a source of colored GEOS pictures. Careful use of the tools that geoPaint has in all its versions, should make it possible for us to create reasonable color printouts from

monochrome clip art. The owner of any printer should be able to make a GEOS print out more colorful.

Letters To The Editor



Dear LOADSTAR,

I tried to download Wraaptor from LOADSTAR's website. The URL was:

<http://www.loadstar.com/downloads/comprrg.wra>

I downloaded it, and its 128k large... how do I decompress it? It's not in any format I'm familiar with.

Peter Schepers

Jeff: I regret that you had to download such a large file. I hope you weren't inconvenienced. BTW, the file you just downloaded was the Compleat Programmer Sampler in a Wraaptor format. This is because of a nasty recurring mistake in the web page. I've fixed it -- again. And if you click on Wraaptor now, you'll get wraaptor.sda instead of the Compleat Programmer sampler.

Dear Jeff,

If you must continue to publish jokes, Jeff, at least be considerate enough to put them on one of the inside pages where I won't spot them until I've read *some* of LOADSTAR Letter.

This past issue, #49, I laughed so much the tears rolled down my cheeks and I had to dry my eyes before I could even finish the jokes. On second thought, putting them inside may not help either. I know you thought the spam about Diane was tasteless, but I had a good belly laugh over it. Sheez! anything to make a buck. And in Atlantic City some of the

boardwalk shops are sporting Diane t-shirts at a much lower price. A buddy of mine (in the publishing business) spellchecked an article about her. The suggested change for Di was die and her boyfriend came out as Dodo.

Knowing the problems faced by those who man Help Desks, I'd say the "Nightmare" (except for the last line) is not apocryphal.

So...keep up the chuckles and I'll keep a handkerchief handy. In the meantime, here are a couple for your private collection.

Unbeknownst to many, the famous painter, Vincent Van Gogh, had a large extended family. Here's a list of some of his relatives:

- The grandfather who moved to Yugoslavia -- U. Gogh
- The brother who accidentally bleached all his clothes white -- Hue Gogh
- The really obnoxious brother -- Please Gogh
- The brother who ate prunes -- Gotta Gogh
- The uncle who worked at a convenience store -- Stop N. Gogh
- His dizzy aunt -- Verti Gogh
- His domineering aunt -- Vira Gogh
- The cousin who moved to Illinois -- Chica Gogh
- His magician uncle -- Wherediddy Gogh
- The cousin who lived in Mexico -- Ameer Gogh
- He also had a Filipino relative -- Grin Gogh
- The nephew that drove a stage coach -- Wells Far Gogh
- The uncle who was constipated -- Cant Gogh
- The aunt who loved ballroom dancing -- Tan Gogh
- His ornithologist uncle -- Flamin Gogh
- His nephew, the Freudian psychoanalyst -- E. Gogh
- His aunt who taught the power of positive thinking -- Whey To Gogh
- His bouncy young nephew -- Poe Gogh
- His disco-loving sister -- Go Gogh
- His Italian uncle -- Day Gogh
- His niece, who's been traveling the U.S. in a van -- Winnie Bay Gogh

- His Olympian brother is Ready Set Gogh.
- His Glad-handed Uncle, Happy Gogh Lucky
- And his Irish niece, Erin Gogh Bragh.
- Can't forget the salesman cousin from India, Gogh Getta?

Enough -- for now.

Keep smilin'.

Ed Harler

e.harler@joesgarage.com

Jeff: I'm glad you like the humor, but it'll probably stay on the back page except for what appears in the letters column like yours. I'm glad that the feedback on the humor content has so far been 100% positive. As you know, there are those among us who think that any joke that isn't actually about a Commodore doesn't belong in the LOADSTAR Letter.

Mouse Traps

By Jeff Jones. None of my mouse-driven programs have hit the streets yet, but I do swear by Mr. Mouse. I hope it catches on like a wave. Commodore standards for mouse use must be set. I like using mouse-driven programs, but if the inclusion of the mouse driver makes the program a pain to use, maybe its application should be examined. Programs shouldn't make you a slave to the mouse. Mice were meant to make programs more intuitive. If you lay down a path navigable only by the mouse, and in only one way, the program isn't necessarily intuitive. To put it in other words, the best mouse-driven program works 100% with the keyboard, also. No menu or button should be clickable only with the mouse. There's nothing I hate more than a program that asks me to type in data and then refuses to accept it when I press RETURN. What's that? Makes no sense.

In my opinion, a mouse-driven program should be written as a keyboard-driven program with mouse alternatives. Intuition is the key. You should ask yourself would the user try to click here? If so, maybe I should have it work. If you've written your program modularly, it's just the same GOSUB that you would have called had

they clicked in your first choice.

Now think about this for a second: If it's that easy to go to the same routine because a person clicked in one of two places, why not add a third click – or even a fourth? I'm talking about clicks from the keyboard. It doesn't strain your resources to check for input from the keyboard. Check out the following pseudocode:

```

LOOP Askmouse
  Getkey
  If mouse clicked then
    CHECK REGION
  If key pressed then CHECK KEY
  Goto LOOP

```

This code doesn't translate into much BASIC or ML code. It's simple to parse the keys and generate a number that sends you to the same ON REGION GOSUB line that a mouse click uses. While not perfect, Windows 95 strove to keep keyboard accessibility and pats itself on the back for it by claiming that it helps users with disabilities. This is true because we've received many letters from disabled readers who are frustrated with any program that requires a joystick for its use. Some users can barely move at all and prefer CRSR/RETURN. Others might lack the coordination or even the fingers to use a mouse. In the Commodore world your main complaint will be from people who simply don't have a mouse. Never had one. Don't want one. So they sit there and curse your program because it's just what they need, but they can't use it. Because you used Mr. Mouse, it also works with a joystick, which they own, but they rightfully would prefer *some* sort of keyboard control.

It's also frustrating to alternate between keyboard and mouse-driven sections of your program. If your opening screen is mouse driven, the next section shouldn't be keyboard only and visa versa. To call this kind of switch up jarring would not be an understatement.

Mr. Mouse has features that I'll probably never use. First there's the file requester and menus. These aren't fully keyboard compatible so you won't see them used in my programs no matter how easy they are to use. I just have a fear that there's a user out there with no mouse or joystick who's staring at the file or option they want, but can move down and select it. Second, I'll probably never use the

MR.MOUSE COMMAND SUMMARY

ML=load address V=ML+111

WEDGE IN:	SYS ML	same in ML
WEDGE OUT:	SYS ML+3	same in ML
EASY SPRITE:	SYS ML+6	same in ML
ASK BASIC:	SYS ML+9	JSR ML+66
PRINT AT:	SYS ML+12,x,y,string	JSR ML+69
DEFINE REGION:	SYS ML+15,region #,x1,x2,y1,y2	JSR ML+72
CAGE MOUSE:	SYS ML+18,x1,x2,y1,y2	JSR ML+75
POSITION MOUSE:	SYS ML+21,x,y	JSR ML+78
PAUSE:	SYS ML+24,jiffies	JSR ML+81
LET GO:	SYS ML+27	same in ML
TEXT BLOCK:	SYS ML+30,x1,x2,y1,y2,sc,color	JSR ML+84

Block: all normal
 Paint: sc = 255
 Shade: color = 255
 *Flip: color + 192
 *Reverse: color + 128
 *Un-reverse: color + 64
 Lattice: color + 32
 Box: color + 16
 (* add 16 more for color set)

TEXT MENU:	SYS ML+33,x1,x2,y1,y2,u,h	JSR ML+87
	h + 128 for no rvs / un-rvs	
AFFECT TEXT REGION:	SYS ML+36,region #,sc,color	JSR ML+90
SCREEN STASH:	SYS ML+39,page	JSR ML+93
SCREEN RESTORE:	SYS ML+42,page	JSR ML+96
TEXT CUT:	SYS ML+45,x1,x2,y1,y2,location	JSR ML+99
TEXT PASTE:	SYS ML+48,x1,x2,y1,y2,location	JSR ML+102
TEXT INPUT:	SYS ML+51,t,c,length	BASIC only
BLOAD:	SYS ML+54,file\$,dv,location	BASIC only
DISK COMMAND:	SYS ML+57,command\$,dv	BASIC only
GET DIRECTORY:	SYS ML+60,"\$:*",\$,dv,location	BASIC only
SCROLLING MENU:	SYS ML+63,x1,x2,y1,y2,u,h,loc,t\$,b\$	BASIC only
	x2 = 255 for file requestor	
MANUAL SPRITE UPDATE:	ML only	JSR ML+105
ALL MR.MOUSE IRQ DUTIES:	ML only	JSR ML+108

ML's INPUT VARIABLES

V+19 Cell X (for prints/plots)
 V+20 Cell Y
 V+21 Min X (set area limits)
 V+22 Max X
 V+23 Min Y
 V+24 Max Y
 V+25 Block 1 (s.code / s.code)
 V+26 Block 2 (color / matrix)
 V+27 Block 3 (- / color)

ALL OTHER VARIABLES

SL% Selection number (for menus)
 F% End address of BLOAded file +1
 E\$ Disk drive error message
 W\$ Line of text from scrolling menu & text brought in by INPUT.
 T\$ Disk name within quotes
 B\$ Blocks free message
 F\$ Filename taken from W\$

FEEDBACK % VARIABLES

PX%	Pixel-X Location	V+28/29
PY%	Pixel-Y Location	V+30
CX%	Cell-X Location	V+31
CY%	Cell-Y Location	V+32
L1%	Left Button State	V+33
L2%	New Left Push	V+34
R1%	Right Button State	V+35
R2%	New Right Push	V+36
RG%	Region # mouse is over	V+37
CR%	Region # being clicked	V+38
SC%	Screen Code under Mouse	V+39
CC%	Color Code under Mouse	V+40
PP%	Pointer Position of Mouse	(*)

(*) ML users: After ASK ML is called, locations \$FB/FC point to the current screen row, and \$FD/FE point to the current color RAM row. Y is set to the Cell-X value. Changes can be made immediately to the screen or color with just LDA #xx, STA (zp),Y.

age mouse command. Lee was smart to automatically cage the mouse on the screen. Mouse drivers that allow the mouse to move off the screen are too Q&D. I've been annoyed by pointers caged to a smaller portion of the screen though. That's my opinion I guess, but it doesn't help me to have the mouse restricted to the area of the options. I've used a mouse for ten years on my Amiga and never had a caged mouse. I'm sure that there are some intuitive uses for caging the mouse, but for me now, it's a waste of code.

I encourage you to write your own file requester or to use my new 6-block menu tool on LOADSTAR #161. It uses Mr. Mouse and the keyboard to navigate a one- or two-column menu that you merely print to the screen. All I had to do to implement this was make a few changes to my mini-toolbox program from LOADSTAR #105. The same can be said of any program. Merely adding a mouse to a program can be simple, but the keyboard must not die.

When programming in machine language, nothing changes. The same burden you took upon yourself when you decided to write a mouse-driven program applies here. ML does not equal Q&D.

Next month I'll show you how to integrate a mouse into a keyboard-driven program, and discuss more common pitfalls to mouse logic.

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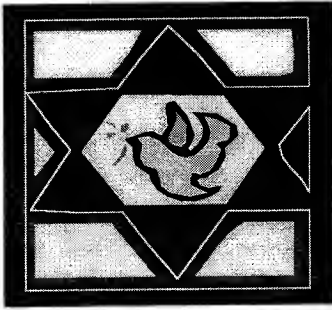
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God Acquired By Bill Gates



By Steven Prazak at
MFI_ATL.

Microsoft Corporation today announced its intent to purchase, copyright, and upgrade God.

The new product is to be named "Microsoft God," and will be available to consumers sometime in late 1998.

"Too many people feel separated from God in today's world," said Dave McCaugh, director of Microsoft's new Religions division. "Microsoft God will make our Lord more accessible, and will add an easy, intuitive user interface to Him, making Him not only easier to

find, but easier to communicate with."

The new Microsoft Religions line will be expanded to include a multitude of add-on products to Microsoft God, including:

Microsoft Crusades: This conversion product will bring all worshipper accounts and prayer files over from previous versions of God, or from competing products like Buddha or Allah.

Microsoft God for the World

Wide Web: This product ties Microsoft God with Microsoft Internet Information Server, making our Lord accessible from the World Wide Web using a standard Web browser interface. It introduces several new Web technologies, including Dynamic Salvation and Active Prayer Pages (APP). Donations for the poor can be donated via a Secure Alms Server.

Microsoft Prayers: Using a Windows 95-based interface, this product will allow worshippers to construct effective prayers in a minimum of time. A Secure Prayer Channel technology will guarantee delivery of the prayer to Microsoft God servers, and Prayer Wizards enable users to construct

new types of prayers with a minimum learning curve.

Microsoft Savior: This product will allow worshippers to transfer their sins to its internal Vice Database. After a preset interval, the product will erase itself from the user's system and establish a clear line of secure communications to the user's Microsoft God server.

Additionally, Microsoft is expected to announce a line of complimentary products for the new Religions line, which will enhance the functionality of the Microsoft God server product by providing a customized user interface. These interfaces will be based on popular religious sects, allowing worshippers to interact with the new God product in much the same way as the previous version.

This line is expected to include Microsoft Christianity, Microsoft Catholicism, Microsoft Judaism (incompatible with Microsoft Savior), etc.

The Kind Of Joke That Makes You Smirk

The friars were behind on their belfry payments, so they opened up a small florist shop to raise the funds. Since everyone liked to buy flowers from the men of God, the rival florist nearby thought the competition was unfair. He asked the good brothers to close down, but they would not. He went back and begged the friars to close. They ignored him. He asked his mother to go and ask the friars to get out of business. They ignored her too. So, the rival florist hired Hugh MacTaggart, the roughest and most vicious thug in town to "persuade" them to close. Hugh beat up the friars and trashed their store, saying he'd be back if they didn't close shop. Terrified, they did so—thereby proving that Hugh, and only Hugh, can prevent florist friars.

LOADSTAR LETTER #50

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